

Figure 2

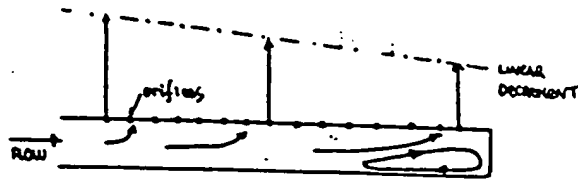


Figure 3a

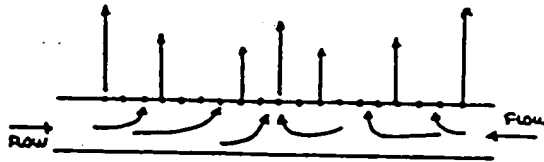


Figure 3b

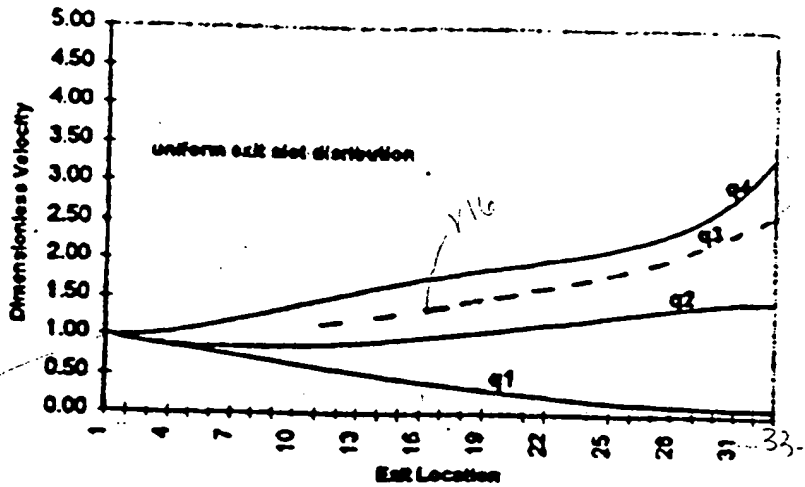


Figure 4

PRIOR ART

V1

V33

The diagram shows a tapered microfluidic device 10. It has an inlet 13 on the left and an outlet 15 on the right. The inlet has a pressure P_1 and a flow rate P_0, V_0 . The outlet has a pressure P_1 . The device is tapered from an inlet diameter D_{in} to an outlet diameter D_{ex} over a length L . The internal flow paths are labeled v_{11} , v_{12} , v_2 , and v_1 . A cross-section 17 shows the internal structure with diameters d_{in} and d_{ex} . The pressure at the outlet is $(P_0 - \Delta p)$.

FIG_6a

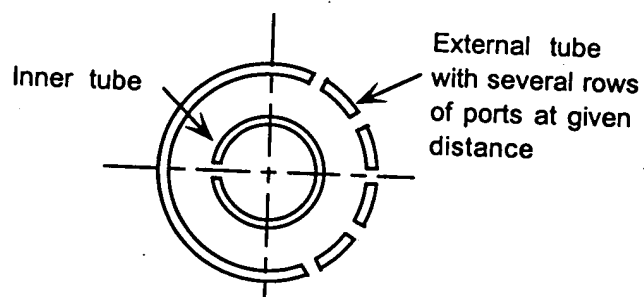


FIG - 6b

gas delivery lines to shields

Exhaust path

injector shield

vent shield

injector

injector gas delivery lines

gas delivery lines to shields

Exhaust path

injector shield

vent shield

water moves under injector assy

F16-7

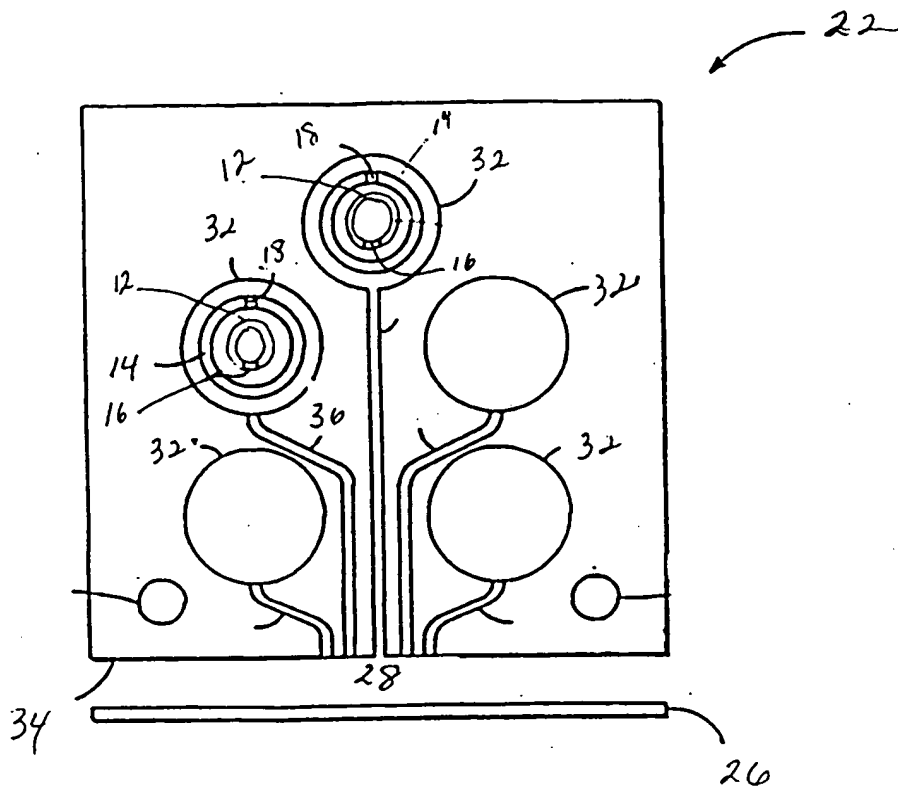


Figure 8